UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,433	01/16/2007	Yong-Man Ro	AB-1849 US	1864

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/575,433	RO ET AL.
	Examiner	Art Unit	
	MARIE GEORGES HENRY	2455	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _24 March 2009_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-19_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☐ Claim(s) _1-19_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All   b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☒ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _3/24/2009_.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to the request for continued examination filed on 03/24/2009.

Claims 2, 4-5, and 12-13 are amended. Claim 14-19 are new. Claims 1-19 are pending.

Claims 1-19 are directed to method and apparatus for converting the modality of

multimedia contents to support the quality of service according to media resource.

2. This application currently names joint inventors. In considering patentability, of the

claims under 35 U.S.C. 10:3(a), the examiner presumes that the subject matter of the

various claims was commonly owned at the time any inventions covered therein were

made absent any evidence to the contrary. Applicant is advised of the obligation under

37 CFR 1.56 to point out the inventor and invention dates of each claim that was not

commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or

described as set forth in section 102 of this title, ff the differences between the subject

matter sought to be patented and the prior art are such that the subject matter as a

whole would have been obvious at the time the invention was made to a person having

ordinary skill in the art to which said subject matter pertains. Patentability shall not be

negatived by the manner in which the invention was made.

4. Claims 1-2 and 7-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Modality Conversion in Content Adaptation for Universal Multimedia Access** by information and Communications University (hereinafter "MCCA") in view of **Tso** et al. (hereinafter "Tso") (**US 6,421,733 B1**).

MCCA discloses the invention substantially as claimed including method and apparatus

for converting the modality of multimedia contents to support the quality of service

according to media resource.

Regarding claim 1, MCCA and Tso disclose the method of claim 12.

Although MCCA discloses a driver transceiver method, he does not disclose a method further comprising, after operation (3), converting of the multimedia item's modality into the desired modality.

Tso discloses the method further comprising, after operation (3), converting of the multimedia item's modality into the desired modality. (Tso, column 17, lines 3-9, this unique feature allows a rich content to be produced without fear that only users with high-sophisticated data communications and display capabilities are able to enjoy it).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement Tso selecting feature into MCCA converting method in order to create a converting method with a selecting feature in order to match the capability of a client device.

Regarding claim 2, MCCA and Tso disclose the method according to claim 1.

Although MCCA discloses a driver transceiver method, he does not disclose a method wherein the one or more media resources are one or more resources of a network or terminal to which the multimedia item is provided in the desired modality.

Tso discloses wherein the one or more media resources are one or more resources of a network or terminal to which the multimedia item is provided in the desired modality (Tso, column 6, lines 37-42, a selected transcode Service provider uses a separate thread to read the incoming data stream, transcode it, and place it within, the entry of service-side cache memory);

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement Tso selecting feature into MCCA converting method in order to create a converting method with a selecting feature in order to match the capability of the client device.

Regarding claim 7, MCCA and Tso disclose an apparatus for performing the method of claim 12. Claim 7 has the same limitations claim 12; therefore, claim 7 is considered an obvious variation.

Regarding claim 8, MCCA and Tso disclose an apparatus for performing the method of claim 1. Claim 8 has the same limitations claim 1; therefore, claim 8 is considered an obvious variation.

Regarding claim 9, MCCA and Tso disclose an apparatus for performing the method of claim 2. Claim 9 has the same limitations claim 1; therefore, claim 9 is considered an obvious variation.

Regarding claim 10, MCCA and Tso disclose an apparatus for performing the method of claim 13. Claim 10 has the same limitations claim 13; therefore, claim 13 is considered an obvious variation.

Regarding claim 11, MCCA and Tso disclose an apparatus for performing the method of

claim 3. Claim 11 has the same limitations claim 1; therefore, claim 11 is considered an

obvious variation.

Regarding claim 12, MCCA discloses in a system for processing multimedia contents, a

method for selecting a desired modality from a plurality of modalities each of which is

adoptable by a multimedia item as an alternative to any other modality of the plurality of

modalities, the desired modality being for adopting the multimedia item to one or more

media resources, the method comprising:

(1) for each said modality, obtaining a content value specification associated

with a set of one or more resource values each of which is a value of the one or more

media resources, the content value specification providing a content value for each of

said one or more resource values in the associated set, wherein the sets associated

with at least two of the modalities overlap (MCCA, page 436, lines 1-9, fig.2, a

overlapping content model is disclosed);

(2) obtaining a resource value vl belonging to at least two of the sets (MCCA,

fig.2, an allocated resource is disclosed).

Although MCCA discloses a system of selecting driver graphics image, he

does not disclose selecting the desired modality from the modalities whose associated

sets contain the resource value vl, the desired modality being selected using the content value specifications of the modalities whose associated sets contain the resource value vl.

Tso discloses selecting the desired modality from the modalities whose associated sets contain the resource value vl, the desired modality being selected using the content value specifications of the modalities whose associated sets contain the resource value vl (Tso, column 6, lines 37-42, a selected transcode Service provider uses a separate thread to read the incoming data stream, transcode it, and place it within, the entry of service-side cache memory);

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement Tso selecting feature into MCCA converting system in order to create a converting system with a selecting feature in order to match the capability of the client device.

Regarding claim 13, in a system for processing multimedia contents, a method for building an overlap content model for a multimedia item which is available in any one of a plurality of alternative modalities, the overlap content model being for providing a desired modality from the plurality of modalities in response to a resource value which is a value of one or more media resources, the method comprising:

wherein the sets associated with at least two of the modalities overlap (MCCA, page 436, fig 2, different modalities are disclosed that have resource intervals);

(2) determining, from the content value specifications, sub-sets of said sets, wherein for each sub-set, one of the content value specifications provides a maximum content value for each resource value in the sub-set, wherein the modality associated with said one of the content value specifications is the desired modality for each resource value in the sub-set (MCCA, page 436, column 2, lines 35-41, fig. 3 the final content value function will be the upper hull of the overlapped model, and the intersection points of the model represent the boundaries between the modalities);

wherein at least one of the sub-sets includes a resource value belonging to at least two of said sets (MCCA, page 436, fig 2, different modalities are disclosed that have resource intervals).

Although MCCA discloses a system of selecting driver graphics image, he does not disclose (1) for each said modality, obtaining a content value specification associated with a set of one or more resource values each of which is a value of the one or more media resources, the content set specification providing a content value for each of said one or more resource values in the associated range.

Tso discloses a system (1) for each said modality, obtaining a content value specification associated with a set of one or more resource values each of which is a value of the one or more media resources, the content value specification providing a content value for each of said one or more resource values in the associated set (Tso, column 6, lines 37-42, a selected transcode Service provider uses a separate thread to read the incoming data stream, transcode it, and place it within ,the entry of service-side cache memory).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement Tso selecting feature into MCCA converting system in order to create a converting system with a selecting feature in order to match the capability of the client device.

Regarding claim 14, MCCA and Tso the method of claim 12 wherein for each modality, the associated content value specification is a scaled content value specification equal to a product of a preliminary content value specification and a scale factor, and operation (1) comprises obtaining the preliminary content value specifications and the scale factors (MCCA, page 435, column 2, lines 31-35, the content of modalities is disclosed depending of the modalities multiplied by a factor).

Regarding claim 15, MCCA and Tso the method of claim 12 wherein at least two content value specifications associated with sets containing the resource value vl

provide respective different content values for the resource value vl, and the desired modality is associated with the content value specification which provides the greatest content value for the resource value vl (MCCA, page 435, column 2, lines 35-41, given a resource value Rc , two others values Ri and Vi are disclosed that lead to a better modality value) .

Regarding claim 16, MCCA and Tso the method of claim 13 wherein operation (2) comprises determining boundary resource values which are resource values at which at least two content value specifications provide equal content values, said boundary resource values comprising one or more boundaries of one or more sub-sets (MCCA, page 436, column 2, lines 35-41, fig. 3 the final content value function will be the upper hull of the overlapped model, and the intersection points of the model represent the boundaries between the modalities).

Regarding claim 17, MCCA and Tso the method of claim 13 wherein for each modality, the associated content value specification is a scaled content value specification equal to a product of a preliminary content value specification and a scale factor, and operation (1) comprises obtaining the preliminary content value specifications and the scale factors (MCCA, page 435, column 2, lines 31-35, the content of modalities is disclosed depending of the modalities multiplied by a factor).

Regarding claim 18, MCCA and Tso the method of claim 13 wherein at least one said

content value specification is obtained by combining quality specifications associated

with respective different qualities, each quality specification providing, for each resource

value in the associated set, a content value based on the respective quality (MCCA,

page 435, column 2, lines 35-41, equation (1), the value of the modality is depending on

capacity, human preferences, and resource values) .

Regarding claim 19, MCCA and Tso the method of claim 18 wherein for at least said

one content value specification, the associated quality specifications are scaled quality

specifications, and said one content value specification is obtained from a sum of the

scaled quality specifications (MCCA, page 435, column 2, lines 35-41, the value of the

modality is sum of different value Ri of the resource constraint).

5. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over **MCCA**,

in view of **Tso**, and further in view of **Adapting Multimedia Internet Content for**

Universal Access (hereinafter "AMICUA").

Regarding claim 3, MCCA and Tso disclose the method according to claim 1.

However, MCCA and Tso do not disclose the method wherein the

content value specifications are obtained from content value curves and scale factors

for said modalities.

AMICUA discloses the method wherein the content value specifications are obtained from content value curves and scale factors for said modalities (AMICUA, page 20, section 4.1, content value makes it possible for authors or users to specify value judgments about various transcoded versions of the content; values are obtained also with different functional relationships with the resource in bits).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature and Tso selecting feature into MCCA converting method in order to create a converting method with adapting and selecting features in order to match the capability of the client device.

Regarding claim 4, MCCA and Tso disclose the method according to claim 3, wherein operation (3) comprises:

However, MCCA and Tso do not disclose the method obtaining conversion boundaries using the content value curves and scale factors for the modalities; and determining the desired modality for using the conversion boundaries.

AMICUA discloses the method obtaining conversion boundaries using the content value curves and scale factors for the modalities; and determining the

desired modality for using the conversion boundaries (AMICUA, page 20, section 4.1,

content value makes it possible for authors or users to specify value judgments about

various transcoded versions of the content; values are obtained also with different

functional relationships with the resource in bits).

Therefore it would have been obvious for one having ordinary skill in

the art at the time the invention was made to implement AMICUA adapting feature and

Tso selecting feature into MCCA converting method in order to create a converting

system with adapting and selecting features in order to match the capability of the client

device.

Regarding claim 5, MCCA and Tso disclose the method according to claim 4.

However, MCCA and Tso do not disclose the method wherein the

conversion boundaries are resource values at which the content value curves

associated with overlapping ranges intersect with each other.

AMICUA discloses the method wherein the conversion boundaries are

resource values at which the content value curves associated with overlapping ranges

intersect with each other (AMICUA, page 12, fig. 2, a modality function based on scale

factors is disclosed).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature and Tso selecting feature into MCCA converting method in order to create a converting method with adapting and selecting features in order to match the capability of the client device.

Regarding claim 6, MCCA and Tso disclose the method according to claim 3.

However, MCCA and Tso do not disclose the method wherein each of the content value curves is obtained by combining content value curves that are measured according to two or more different qualities.

AMICUA discloses the method wherein each of the content value curves is obtained by combining content value curves that are measured according to two or more different qualities. (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with the resource in bits).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature and Tso selecting features into MCCA converting method in order to create a converting method with adapting and selecting features in order to match the capability of the client device.

6. The prior arts made of record and not relied upon are considered pertinent to

applicant's disclosure. Wadell (US 6,816,805 B1) is made part of the record because of

the teaching of conversion. Tso (US 6,959,318 B1) is made part of the record because

of the teaching of transcoding. Signes (US 6,195,088 B1) is made part of the record

because of the teaching of encoding. Moore et al. (US 6,310, 601B1) is made part of

the record because of the teaching of multimedia content. Chernock et al. (US 6,

314,569 B1)is made part of the record because of the teaching of multimedia

presentation. Li et al. (US 6,345,279 B1) is made part of the record because of the

teaching of transcoded content version.

Response to Argument

7.   Applicant's arguments filed on March 24, 2009 with respect to claims 1-19 have

been considered but are moot in view of the new ground(s) of rejection

Conclusion

8. Any inquiry concerning this communication from the examiner should be directed to

   Marie Georges Henry whose telephone number is (571) 270-3226. The

examiner   can normally be reached on Monday to Friday 7:30am - 4:00pm. If attempts

to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh

Najjar can be reached on (571) 272-4006. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from

a USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marie Georges Henry/

Examiner, Art Unit 2455

/saleh najjar/
Supervisory Patent Examiner, Art Unit 2455